#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

e Application of:

Michael I. Catherwood

Serial No.: 09/870,711

Filing Date: June 1, 2001

Title: "Maximally Negative Signed Fractional §

Number Multiplication"

Group Art Unit: 2124

Examiner: David H. Malzahn

Attny. Docket No. 068354.1446

Client Ref.: MTI-1754.US.0

MAIL STOP AMENDMENTS Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 CERTIFICATE OF MAILING VIA EXPRESS MAIL

Pursuant to 37 C.F.R.  $\S$  1.10, I hereby certify that I have information and a reasonable basis for belief that this correspondence will be deposited with the U.S. Postal Service as Express Mail Post Office to Addressee, on the date below, and is addressed to:

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#### INFORMATION DISCLOSURE STATEMENT

PAUL N. KATZ

Sir:

Applicants respectfully request, pursuant to 37 C.F.R. §§1.56, 1.97 and 1.98, that the references listed on the attached PTO-1449 form be considered and cited in the examination of the above-identified application. A copy of the cited references is enclosed for the convenience of the Examiner.

Furthermore, pursuant to 37 C.F.R. §§1.97(g) and (h), no representation is made that these references are material to the patentability of the present application.

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Attorney Docket: 068354.1446 EV449865913US

As this Information Disclosure Statement is being submitted along with a Response to Office Action, Applicants enclose a check in the amount of \$180.00. Applicants believe that no further fee is required, however, if an additional fee is required, please accept this transmittal as a petition therefor and charge any fee to Baker Botts L.L.P. (formerly, Baker & Botts, L.L.P.) Deposit Account No. 50-2148, Order No. (068354.1446) for any other charges

necessary for the filing of this Information Disclosure Statement.

BAKER BOTTS L.L.P. (31625)

Date: July 19, 2004

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# Information Discognositation in an Application

Patent No.	Applicant(s)	
09/870,711	М	ichael I. Catherwood
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068354.1446	2124	June 1, 2001

#### **U.S. PATENT DOCUMENTS**

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A.	3771146	11/73	Cottton et al.	710	260	
B.	3781810	12/25/73	Downing	712	228	
C.	3886524	5/75	Appelt, Daren R.	710	110	
D.	4025771	5/77	Lynch et al.	708	521	
E.	4074353	2/78	Woods et al.	710	264	
F.	4090250	5/78	Carlson et al.	712	234	
G.	4379338	4/83	Nishitani et al.	708	552	
H.	4398244	8/9/83	Chu et al.	712	244	
I.	4451885	5/84	Gerson et al.	708	200	
J.	4472788	9/18/84	Yamazaki	708	209	
K.	4481576	11/6/84	Bicknell	711	217	
L.	4488252	12/11/84	Vassar	708	505	
M.	4511990	4/16/85	Hagiwara et al.	708	501	

#### FOREIGN PATENT DOCUMENTS

						TRANSL	ATION
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO
N.	0 855 643 A1	29-07-98	EP		DECEN	<b>/</b>	
O.	0 554 917 A2	11-08-93	ЕР		<b>TECEIV</b>	(ED	
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#### NON-PATENT DOCUMENTS

### Technology Center 2100

	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
Q.	Moon B I et al.: "A 32-bit RISC Microprocessor with DSP Functionality: Rapid Prototyping" IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, Institute of Electronics Information and Comm. Eng. Tokyo, JP, vol. E84-A no. 5, pages 1339-1347, XP001060025 ISSN: 0916-8508	May 2001
R.	Turley J: "Balancing Conflicting Requirements When Mixing RISC, DSPs" Computer Design, Pennwell Publ. Littleton, Massachusetts, IS, vol. 37, no. 10, pages 46, 48, 50-53, XP000860706 ISSN:0010-4566	October 1998
S.	Levy M: "Microprocessor and DSP Technologies Unite for Embedded Applications" EDN Electrical Design News, Cahners Publishing Co., Newtown Massachusetts, US, no. Europe, pages 73-74, 76, 78-80, XP000779113 ISSN: 0012-7515	2 March 1998
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Patent No.	Applicant(s)				
09/870,711	ı	Michael I. Catherwood			
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068354 1446	2124	June 1, 2001			

#### **U.S. PATENT DOCUMENTS**

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A.	4556938	12/3/85	Parker et al.	712	241	
B.	4626988	12/2/86	George	712	241	
C.	4730248	3/8/88	Watanabe et al.	712	228	
D.	4779191	10/88	Greenblatt, Richard	711	2	
E.	4782457	11/1/88	Cline	708	205	
F.	4807172	2/21/89	Nukiyama	708	209	
G.	4829460	5/9/89	Ito	708	209	
H.	4829420	5/9/89	Stahle	711	200	
I.	4841468	6/89	Miller et al.	708	625	
J.	4839846	6/13/89	Hirose et al.	708	497	
K.	4872128	10/3/89	Shimizu	708	209	
L.	4882701	11/21/89	Ishii	712	241	
M.	4926371	5/90	Vassilliadis et al.	708	628	

#### FOREIGN PATENT DOCUMENTS

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#### **U.S. PATENT DOCUMENTS**

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
Α.	4941120	7/10/90	Brown et al.	708	497	
B.	4943940	7/24/90	New	708	507	
C.	4959776	9/25/90	Deerfield et al.	711	217	
D.	4977533	12/11/90	Miyabayashi et al.	708	404	
E.	4984213	1/8/91	Abdoo et al	365	230.03	
F.	5007020	4/9/91	Inskeep	711	200	
G.	5012441	4/30/91	Retter	711	217	
H.	5032986	7/16/91	Pathak et al.	711	217	
I.	5038310	8/6/91	Akagiri et al.	708	205	
J.	5056004	10/8/91	Ohde et al.	712	241	
K.	5099445	3/24/92	Studor et al.	708	209	
L.	5101484	3/31/92	Kohn	712	241	
M.	5117498	5/26/92	Miller, et al.	712	241	

#### FOREIGN PATENT DOCUMENTS

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#### **NON-PATENT DOCUMENTS**

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#### **U.S. PATENT DOCUMENTS**

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATI
A.	5121431	6/92	Wiener, Michael J.	713	174	
B.	5122981	6/16/92	Taniguchi	708	497	
C.	5155823	10/13/92	Tsue	711	217	
D.	5197140	3/23/93	' Balmer	711	222	
E.	5197023	3/23/93	Nakayama	708	505	
F.	5206940	4/27/93	Murakami et al.	711	218	
G.	5212622	5/18/93	Cocanougher et al.	708	508	
H.	4408274	10/93	Wheatley et al	711	163	
I.	5276634	1/4/94	Suzuki et al.	708	497	
J.	5282153	1/25/94	Bartkowiak et al.	708	233	
K.	5327566	7/5/94	Forsyth	710	260	
L.	5327543	7/5/94	Miura et al.	712	224	
M.	5379240	1/3/95	Byrne	708	209	

#### FOREIGN PATENT DOCUMENTS

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#### **U.S. PATENT DOCUMENTS**

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATI
Α.	5422805	6/95	McIntyre et al.	708	625	
B.	5448703	9/5/95	Amini et al.	710	110	
C.	5448706	9/5/95	Fleming et al.	711	217	
D.	5463749	10/31/95	Wertheizer et al.	711	110	
E.	5469377	11/21/95	Amano	708	497	
F.	5471600	11/28/95	Nakamoto	711	5	
G.	5497340	3/5/96	Uramoto et al.	708	552	
H.	5499380	3/12/96	Iwata et al.	711	212	
I.	5517436	5/96	Andreas et al.	708	524	
J.	5548544	8/20/96	Matheny et al.	708	497	
K.	5568380	10/96	Broadnax et al.	700	79	
L.	5568412	10/22/96	Han et al.	708	497	
M.	5596760	1/21/97	Ueda	712	244	

#### FOREIGN PATENT DOCUMENTS

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#### **NON-PATENT DOCUMENTS**

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#### **U.S. PATENT DOCUMENTS**

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A.	5600813	2/4/97	Nakagawa et al.	711	217	
B.	5619711	4/8/97	Anderson	712	221	
C.	5642516	6/97	Hedayat et al.	710	260	
D.	5638524	6/10/97	Kiuchi et al.			
E.	5651121	7/22/97	Davies			
F.	5657484	8/12/97	Scarrá			
G.	5682339	10/28/97	Tam			
H.	5689693	11/18/97	White	712	224	
I.	5694350	12/2/97	Wolrich et al.	708	497	
J.	5696711	12/9/97	Makineni	708	497	
K.	5706460	1/6/98	Craig et al.	712	204	
L.	5715470	2/3/98	Asano et al.	375	341	
M.	5740095	4/98	Parant, Phillippe	708	628	

#### FOREIGN PATENT DOCUMENTS

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#### NON-PATENT DOCUMENTS

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#### **U.S. PATENT DOCUMENTS**

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATI
Α.	5737570	4/7/98	Koch	711	149	
В.	5740419	4/14/98	Potter	712	241	
C.	5748516	5/5/98	Goddard et al.	708	497	
D.	5765216	6/98	Weng et al.	711	214	
E.	5764555	6/9/98	McPherson et al.	708	497	
F.	5774711	6/30/98	Henry et al.	712	244	
G.	5778416	7/7/98	Harrison et al.	711	5	
H.	5790443	8/4/98	Shen et al.	708	491	
I.	5808926	9/15/98	Gorshtein et al.	708	497	
J.	5812439	9/22/98	Hansen	708	497	
K.	5826096	10/20/98	Baxter	712	24	
L.	5825730	10/20/98	Nishida et al.	369	443	
M.	5828875	10/27/98	Halvarsson et al.	712	241	

#### FOREIGN PATENT DOCUMENTS

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09/870,711	Michael I. Catherwo	ood	
Docket Number	Group Art Unit	Filing Date	
060254 1446	2124	June 1, 2001	

#### **U.S. PATENT DOCUMENTS**

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A.	5862065	1/19/99	Muthusamy	708	521	
B.	5880984	3/9/99	Burchfiel et al.	708	501	
C.	5892697	4/6/99	Brakefield	708	496	
D.	5892699	4/6/99	Duncan et al.	708	628	
E.	5894428	4/13/99	Harada	708	306	
F.	5909385	6/1/99	Nishiyama et al.	708	630	
G.	5917741	6/29/99	Ng.	708	497	
H.	5930503	7/27/99	Drees	713	n	
I.	5930159	7/27/99	Wong	708	550	
J.	5944816	8/99	Dutton et al.	712	215	
K.	5936870	8/99	Im, Jin Hyeock	708	552	
L.	5938759	8/17/99	Kamijo	712	209	
M.	5943249	8/24/99	Handlogten	708	496	

#### FOREIGN PATENT DOCUMENTS

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#### **U.S. PATENT DOCUMENTS**

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A.	5941940	8/24/99	Prasad et al.	708	523	
B.	5951679	9/14/99	Anderson, et al.	712	241	
C.	5951627	9/14/99	Kiamilev et al.	708	404	
D.	5991787	11/23/99	Abel et al.	708	400	
E.	5996067	11/30/99	White	712	224	
F.	6009454	12/28/99	Dummermuth	718	108	
G.	6014723	1/11/00	Tremblay et al.	711	1	
H.	6026489	2/15/00	Wachi et al.	712	241	
I.	6044392	3/28/00	Anderson et al.	708	551	
J.	6044434	3/28/00	Oliver	711	110	
K.	6061783	5/00	Harriman, Ward	712	224	
L.	6061711	5/00	Song et al.	718	108	
M.	6058409	5/2/00	Kozaki et al.	708	409	

#### FOREIGN PATENT DOCUMENTS

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060254 1446	2124	June 1 2003	

#### **U.S. PATENT DOCUMENTS**

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A.	6058410	5/2/00	Sharangpani	708	35,1	
B.	6058464	5/2/00	Taylor	711	217,	
C.	6061780	5/9/00	Shippey, et al.	712	204	
D.	6076154	6/13/00	Van Eijndhoven et al	712	24	
E.	6101599	8/00	Wright et al.	712	228	
F.	6101521	8/8/00	Kosiec	708	550	
G.	6115732	9/5/00	Oberman et al.	708	625	
H.	6128728	10/3/00	Dowling	712	228	
I.	6134574	10/17/00	Oberman et al.	708	551	
J.	6144980	11/00	Oberman, Stuart F.	708	627	
K.	6145049	11/7/00	Wong	710	267	
L.	6205467	3/01	Lambrecht et al.	718	108	
M.	6243804	6/01	Cheng, Chuck Cheuk-wing	712	228	

#### FOREIGN PATENT DOCUMENTS

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#### **U.S. PATENT DOCUMENTS**

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A.	6295574	9/01	MacDonald, James R.	710	261	
B.	6377619	4/02	Denk et al.	708	322	
C.	6412081	6/02	Koscal et al.	714	34	
D.	6487654	11/02	Dowling, Eric M.	712	244	
E.	6633970	10/03	Clift et al.	712	217	
F.	6523108	2/03	James et al.	712	224	
G.	6564238	5/03	Kim et al.	708	513	
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